

UNITED STATES DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVEN	TOR		TTORNEY DOCKET NO.
09/456,558	12/08/99	BERTOCCHIO		R	1798-7337
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SMITH, GAMBRELL & RUSSELL				CINTINS	3, I
BEVERIDGE,	DEGRANDI, W	EILACHER & YOUNG		ART UNIT	PAPER NUMBER
	. PROPERTY G ET, N.W., DC 20036			1724	

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Application No.

09/456,558

Ivars C. Cintins

Applicant

Examiner

Group Art Unit

1724

Bertocchio



Office Action Summary

☐ This action is FINAL .	
Since this application is in condition for allowance except for formal matrix in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 4	ters, prosecution as to the merits is closed .53 O.G. 213.
A shortened statutory period for response to this action is set to expire is longer, from the mailing date of this communication. Failure to respond vapplication to become abandoned. (35 U.S.C. § 133). Extensions of time r 37 CFR 1.136(a).	within the period for response will cause the
Disposition of Claims	
	is/are pending in the application.
Of the above, claim(s)	is/are withdrawn from consideration.
☐ Claim(s)	
X Claim(s) 1-8 and 11-19	
X Claim(s) 9 and 10	
☐ Claims are sul	
Application Papers	
☐ See the attached Notice of Draftsperson's Patent Drawing Review, P	TO-948.
☐ The drawing(s) filed on is/are objected to by the	e Examiner.
	approved disapproved.
☐ The specification is objected to by the Examiner.	
\square The oath or declaration is objected to by the Examiner.	
Priority under 35 U.S.C. § 119	
Acknowledgement is made of a claim for foreign priority under 35 U.	S.C. § 119(a)-(d).
	documents have been
🔀 received.	
received in Application No. (Series Code/Serial Number)	•
$\hfill\Box$ received in this national stage application from the Internationa	al Bureau (PCT Rule 17.2(a)).
*Certified copies not received:	
\square Acknowledgement is made of a claim for domestic priority under 35 $^{\circ}$	U.S.C. § 119(e).
Attachment(s)	
■ Notice of References Cited, PTO-892	
☐ Interview Summary, PTO-413	
□ Notice of Draftsperson's Patent Drawing Review, PTO-948	
☐ Notice of Informal Patent Application, PTO-152	
SEE OFFICE ACTION ON THE FOLLOW	UNG PAGES



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Claims 9 and 10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must refer to other claims in the alternative only (see claim 9, lines 1 and 3). Claim 10 depends from claim 9, and therefore suffers similarly (see MPEP § 608.01(n)). Accordingly, these claims have not been further treated on the merits.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lavin et al (U.S. Patent No. 6,020,281). The reference discloses drying difluoromethane (F32) with a 3A type molecular sieve (see col. 7, line 25 and col. 8, line 35) at the recited temperature (col. 7, line 29 and col. 8, line 46). Accordingly, this reference discloses the claimed invention with the exception of the operating pressure and water content (claims 3 and 14) of the stream undergoing treatment. However, the exact operating pressure and water content of the F32 undergoing treatment are not seen to materially affect the overall results



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of the reference process, or to produce any new and unexpected results; and are therefore deemed to be obvious matters of choice, which are insufficient to patentably distinguish the claims.

Claims 6-8 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lavin et al as applied above, and further in view of Sherman et al (U.S. Patent No. 4,663,052). The modified primary reference discloses the claimed invention with the exception of the recited regeneration treatment. Sherman et al teaches regenerating a molecular sieve which has been used to dry halogenated methane (see col. 5, lines 34-36) in the recited manner (see col. 5, lines 49-50, 52-53, 55-56 and 64-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to regenerate the molecular sieve of the primary reference in the manner taught by Sherman et al, in order to enable this primary reference adsorbent to be reused.

Lavin et al (U.S. Patent No. 5,347,822) discloses a similar process for drying difluoromethane. Balton et al (U.S. Patent No. 5,574,214) teaches (see col. 4, lines 47-54) that molecular sieves designated as 3A, 4A and 5A are capable of removing water from diverse fluids.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins

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whose telephone number is (703) 308-3840. The examiner can normally be reached on Monday through Friday from 9:30 AM to 6:00 PM.

The fax phone numbers for this art unit are: (703) 305-3599 for "Official" faxes after Final Rejection; (703) 305-7718 for all other "Official" faxes; and (703) 305-3602 for "Draft" and other "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
December 16, 2000